

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-44. (Cancelled)

45. (New) A computer implemented method for routing network traffic flowing to and from a cluster of network enabled devices having at least a first network enabled device with a first routing component and a second network enabled device with a second routing component and a network manager, the network manager external to and communicably coupled to the first routing component and the second routing component, each of the network enabled devices in the cluster configured to communicate with network devices external to the cluster through a single network address, each of the network enabled devices in the cluster configured to operate in parallel and independently of each other, the method comprising:
at the second network enabled device, receiving one or more incoming messages indicating the single network address as a destination address;
at the second network enabled device, routing the one or more incoming messages to one of the network enabled devices in the cluster;
at a configuration manager module of the first routing component, storing configuration information relayed from a configuration manager module of the second routing component; and
at a dynamic routing module of the first routing component, in response to a command from the network manager, storing routing information received from the second routing component via a cluster internal communication mechanism;
wherein upon an unplanned failure of the second dynamic routing module of the second routing component,

the dynamic routing module of the first routing component executes according to the configuration information stored in the configuration manager module of the first routing component; and

the first routing component transmits a hitless restart event, the hitless restart event signaling network enabled devices outside of the cluster to continue forwarding packets to the cluster.

46. (New) The method of Claim 45 wherein the routing is performed under an OSPF routing protocol.

47. (New) A routing component configured for use in a cluster of network enabled devices having at least a first network enabled device with the routing component and a second network enabled device with a second routing component and a network manager, the network manager external to and communicably coupled to the routing component and to the second routing component, each of the network enabled devices in the cluster configured to communicate with network devices external to the cluster through a single network address, each of the network enabled devices in the cluster configured to operate in parallel and independently of each other, the routing component comprising:

a configuration manager module configured to store configuration information relayed from a configuration manager module of the second routing component; and

a dynamic routing module;

the routing component configured to apply the configuration information through the interaction of the configuration manager module and the configuration manager module of the second routing component to an instantiation of the dynamic routing module operating in the routing component;

the dynamic routing module configured to execute in response to a command from the network manager, and further configured to execute according to the configuration information stored in the configuration manager module upon an unplanned failure of the second dynamic routing module of the second routing component; and the routing component further configured to transmit a hitless restart event responsive to the unplanned failure of the second dynamic routing module of the second routing component, the hitless restart event signaling network enabled devices external to the cluster to continue forwarding packets to the cluster.

48. (New) The routing component of Claim 47 wherein the dynamic routing module implements an OSPF routing protocol.
49. (New) The routing component according to Claim 47, further comprising a communication module configured to receive a reply from another routing component associated with the receipt of a hitless restart.
50. (New) An apparatus for routing network traffic flowing to and from a cluster of network enabled devices having at least a first network enabled device with a first routing component and a second network enabled device with a second routing component and a network manager, the network manager external to and communicably coupled to the first routing component and the second routing component, each of the network enabled devices in the cluster configured to communicate with network devices external to the cluster through a single network address, each of the network enabled devices in the cluster configured to operate in parallel and independently of each other, the apparatus comprising:

means for, at the second network enabled device, receiving one or more incoming messages indicating the single network address as a destination address;

means for, at the second network enabled device, routing the one or more incoming messages to one of the network enabled devices in the cluster;

means for, at a configuration manager module of the first routing component, storing configuration information relayed from a configuration manager module of the second routing component; and

means for, at a dynamic routing module of the first routing component, in response to a command from the network manager, storing routing information received from the second routing component via a cluster internal communication mechanism;

wherein upon an unplanned failure of the second dynamic routing module of the second routing component,

the dynamic routing module of the first routing component executes according to the configuration information stored in the configuration manager module of the first routing component; and

the first routing component transmits a hitless restart event, the hitless restart event signaling network enabled devices outside of the cluster to continue forwarding packets to the cluster.

51. (New) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for routing network traffic flowing to and from a cluster of network enabled devices having at least a first network enabled device with a first routing component and a second network enabled device with a second routing component and a network manager, the network manager external to and communicably coupled to the first routing component and the second routing component,

each of the network enabled devices in the cluster configured to communicate with network devices external to the cluster through a single network address, each of the network enabled devices in the cluster configured to operate in parallel and independently of each other, the method comprising:

at the second network enabled device, receiving one or more incoming messages indicating the single network address as a destination address;

at the second network enabled device, routing the one or more incoming messages to one of the network enabled devices in the cluster;

at a configuration manager module of the first routing component, storing configuration information relayed from a configuration manager module of the second routing component; and

at a dynamic routing module of the first routing component, in response to a command from the network manager, storing routing information received from the second routing component via a cluster internal communication mechanism;

wherein upon an unplanned failure of the second dynamic routing module of the second routing component,

the dynamic routing module of the first routing component executes according to the configuration information stored in the configuration manager module of the first routing component; and

the first routing component transmits a hitless restart event, the hitless restart event signaling network enabled devices outside of the cluster to continue forwarding packets to the cluster.